

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of the claims in the application.

Listing of the claims:

1. (Currently amended) Apparatus for measuring the strength of a person's respiratory muscles, which apparatus comprises a mouthpiece for the person, a flow transducer, a pressure transducer, a variable orifice valve, a motor for operating the variable orifice valve, and a microprocessor controller, wherein the microprocessor controller ~~being such that it~~ controls the motor to cause the variable orifice valve to vary its orifice size in response to at least one of flow and pressure signals obtained consequent upon the person breathing into the mouthpiece, ~~whereby~~ wherein the orifice size maintains a constant predetermined pressure and enables measurement of the flow rate generated by the person, or the orifice size maintains a constant predetermined flow rate and enables measurement of the pressure generated by the person, and wherein the variable orifice valve is a rotary variable orifice valve comprising a cylindrical member, a longitudinally extending bore in the cylindrical member, a lateral aperture positioned in a wall of the cylindrical member and between ends of the cylindrical member, a sleeve, a longitudinally extending bore in the sleeve, and a lateral aperture positioned in a wall of the sleeve between ends of the sleeve.

2. (Previously amended) Apparatus according to claim 1 and including a control circuit, the flow transducer being connected to the control circuit, the pressure transducer being connected to the variable orifice valve and to the control circuit, and the control circuit being connected to the microprocessor control means.
3. (Original) Apparatus according to claim 1 in which the microprocessor control means comprises a microprocessor circuit, display means, and a keypad.
4. (Original) Apparatus according to claim 3 in which the display means is a display screen and/or a hard copy print device.
5. (Original) Apparatus according to claim 1 in which the mouthpiece has a flange at the end of the mouthpiece that goes into the person's mouth.
6. (Original) Apparatus according to claim 1 in which the variable orifice valve is a rotary variable orifice valve.
7. (Original) Apparatus according to claim 6 in which the rotary variable orifice valve has an orifice which is of a shape that causes the resistance to flow of the rotary variable orifice valve to increase with rotation.

8. (Original) Apparatus according to claim 6 in which the orifice in the rotary variable orifice valve is of a triangular shape.

9. (Original) Apparatus according to claim 6 in which the rotary variable orifice valve comprises a cylindrical member and a sleeve which is a rotational fit over the cylindrical member.

10. (Original) Apparatus according to claim 9 in which the cylindrical member has an aperture, the sleeve has an orifice, and the aperture and the orifice are positioned such that they overlap as the sleeve rotates.

11. (Original) Apparatus according to claim 9 in which the cylindrical member has the orifice, the sleeve has an aperture, and the aperture and the orifice are positioned such that they overlap as the sleeve rotates.

12. (Original) Apparatus according to claim 9 in which the orifice is positioned partly in the cylindrical member and partly in the sleeve.

13. (Cancelled)